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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,506

10/17/2003

Rangarajan Sundar

P957 US

2003

28390

7590

09/22/2006

MEDTRONIC VASCULAR, INC.  
IP LEGAL DEPARTMENT  
3576 UNOCAL PLACE  
SANTA ROSA, CA 95403

EXAMINER

BARRETT, THOMAS C

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/688,506

Applicant(s)

SUNDAR, RANGARAJAN

Examiner

Thomas C. Barrett

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 12, 2006 has been entered.

### ***Response to Arguments***

Applicant's arguments filed August 17, 2006 have been fully considered but they are not persuasive.

The Applicant argue, "Specifically, Buirge does not teach coating an outer surface of a stent or means for applying a coating to an outer surface of a stent as claimed and described by the Applicant (see Specification page 5 lines 3-16)." However, Buirge does disclose placing the stents on a mandrel and then dip-coating them, which would thereby coat the outer surface of the stent. The means of coating disclosed in the portion of the Specification cited by the Applicant includes dip-coating.

And contrary to the Applicant's arguments, there is no "teaching away" of the invention. a lack of disclosure does not constitute a "teaching away". The fact that Buirge does not specifically disclose certain elements, e.g. "a coated detachable portion

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with a pooled coating" does not constitute a teaching away. In addition, the stent-pump of Buirge has the same structure as the stent claimed, and can act as a stent.

And as noted in the Final Office Action of June 21, 2006, the coating of the stent occurs **before** the long tube is cut and the ends of the stent are coated **after** the detaching step (col. 4, lines 32-52).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification lacks disclosure of the stent having "an uncoated end".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-6, 17, 19-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Buirge (5,735,897). Buirge discloses a stent delivery system comprising: catheter; balloon operably attached to the catheter; and stent disposed on the balloon (col. 2, lines 37-38); coating disposed on the stent, the coating applied to a preliminary stent comprising a permanent portion and a detachable portion while retaining the preliminary stent by the detachable portion, the stent formed from the permanent portion by removing the detachable portion. In column 4, lines 32-52, Buirge discloses that "a long tube of stent-pump is prepared and then individual stents are cut off." If one considers the long tube, or preliminary stent, capable of forming, for example, three stents, then the first and third stents can be considered the first and second detachable portions respectively as claimed and the second, or middle stent, the permanent portion. The ends are finished with additional coating (col. 4, lines 50-52). The mandrel is the retainer, with the portions that hold the outer detachable stents first and second retaining portions.

Claims 1, 3, 4, 6 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Frantzen et al. (5,782,907). Frantzen et al. discloses an externally coated stent mounted on a balloon catheter having uncoated ends (col. 9, line 66- col. 10, line 5). Please note that the limitation beginning "the coating applied to a preliminary..." is a product-by-process limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buirge (5,735,897) as above in view of admissions in the present specification. Buirge discloses a stent delivery system, which comprises a stent made by detaching the detachable portions of the stent. However, Buirge does not disclose the detachable portion having a pooled coating. The background of the present specification states:

"When the coating is applied, the stent is generally supported on a fixture, such as a mandrel or similar device that allows the stent to be immersed in or sprayed with the coating material. The stent is retained on the fixture to prevent the stent from sliding. Cones aligned with the long axis and inserted in the ends of the stent, supporting pins, or clips can be used to retain the stent. Possible retainer materials that can be used to reduce liquid adhesion to the retainer include Delrin, Teflon, or stainless steel."

The stents of Buirge are made on a mandrel, and therefore it is well known as admitted by the applicant to use cones, supporting pins or clips which the applicant also admits leads to pooling on the detachable portions.

Regarding claims 10-11, Buirge discloses a stent delivery system, which comprises a stent made by detaching ends of the stent by cutting. However, Buirge does not disclose exactly how the detachable ends are cut off. The use of lasers or mechanical cutting devices is well known to ones of ordinary skill in the art for cutting and making stents.

Regarding claims 10-11, Buirge discloses a stent delivery system, which comprises a coated stent. However, Buirge does not disclose applying the coating by spraying. Spraying or dipping of stents to apply coatings is well known to ones of ordinary skill in the art as obvious equivalents, often cited together as alternative methods, e.g. in Hossainy et al. (6,153,252- col. 1, lines 25-27) and Harry (2002/0038146- paragraph [0038]).

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buirge (5,735,897) as above in view Wang (6,379,379 B1). Buirge discloses a stent delivery system as above. However, Buirge does not disclose the ends as polished. Wang teaches a stent having polished ends (col. 9, lines 1-10). It would be obvious to one of ordinary skill in the art to combine the polished ends of the stent, as taught by Wang, to the stent as per Buirge, so that "the edges are rounded or smoothed out so that the possibility of damage to a passage is lessened" as cited by Wang.

### ***Conclusion***

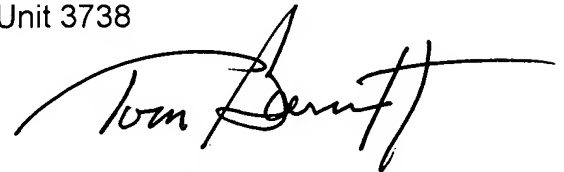
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas C. Barrett whose telephone number is (571) 272-4746. The examiner can normally be reached on Mon. -Fri. from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas C. Barrett  
Examiner  
Art Unit 3738

A handwritten signature in black ink, appearing to read "Tom Barrett", with a long horizontal flourish extending to the right.

**TOM BARRETT  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 3700**